Research Paper | Health Science | E-ISSN No : 2454-9916 | Volume : 2 | Issue : 4 | April 2016

A REVIEW ARTICLE ON ICD-10 AND RECOMMENDATION FOR ITS APPLICATION

Dr. B.S. Powdwal [1] | Dr (Brig) A. P. Pandit [2] | Ms. Meenal Kulkarni [3]

[1] MBBS.MS. MBA, ExVice President, Bajaj Allianz Health Insurance, Mumbai.
[2] MD(HA)DNB(H&HA) Professor, Symbiosis Institute of Health Sciences, (Symbiosis International University), Pune-04
[3] MBA(HA), PhD Scholar, Symbiosis Institute of Health Sciences, Pune-04

Introduction

Human beings by their very nature find it easy and practical to communicate in words and signs, rather than numbers, since times immemorial. With the advent of computer systems and data overload, it becomes difficult to store retrieve and analyze data in textual format. Just the reverse, it is easy for software programs to deal in numbers instead of text.

Clinical coding is a scientific methodology of converting data related to Diagnoses of diseases, Causes of Deaths, Medical procedures and other health related matters from textual form to numerical or alphanumerical form, basis widely agreed and accepted classifications.[1]

This facilitates ease in recording, storage, retrieval and analysis of medical data as compared to the data in textual form.Medical classifications were first suggested and started around 17th and 18th centuries by the then well-known personalities like Florence Nightingale, John Graunt, William Farr, Dr. Jacques Bertillon and others, basically classifying the Causes of Deaths in the population.

The original version of classification underwent several upgrading, refinements and modifications over the centuries and the current version is the ICD 10 being used in India, implemented in India since the year 2000, though not uniformly across the country in all hospitals and Health services related organizations.

The name of ICD - International Statistical Classification of Diseases and Related Health Problems was given to this classification by World Health Organization. ICD is a health care classification system, which provides a system of diagnostic codes for the classification of diseases, including a wide variety of signs, symptoms, abnormal findings, complaints, social circumstances, and external causes of injury or disease.

This system facilitates the mapping of health conditions to corresponding generic categories together with specific variations, assigning a designated code for each of these health conditions, up to six characters long. Thus, major categories are designed to include a set of similar diseases or a group of diseases.

Hospital records provide a huge data base and systematic coding of medical records and analysis of this data base is extremely important for understanding and improving the public health situation of the country, by suitably and appropriately planning hospital loads and planning necessary interventions by public health authorities.

Analysis of mortality records of a facility will indicate those diseases and health problems which are the underlying causes of death in the particular area and will alert the public health authorities on the existing situation for necessary preventive, curative and rehabilitative actions.

Accurate accumulation of the health records from different hospital data bases are possible only if these records are coded uniformly using ICD 10. Such cumulated data base will reveal the country situation on the whole and is a necessary evidence for policy making. In the absence of a uniform classification of diseases it is difficult to use the data satisfactorily and accurately, for statistical analysis of illnesses or cause of death.

Hence 'A provisional classification of diseases and injuries for use in compiling morbidity statistics was prepared in 1942' in London by the Registrar General.2It was prepared with the purpose of providing a scheme for collecting and recording statistics of patients admitted to hospitals in the United Kingdom, using a standard classification of diseases and injuries, and was used throughout the country by governmental and other agencies.

The ICD underwent periodic revision and is currently in its tenth revision, the ICD-10. This version was developed in 1992 to track health statistics. ICD-11 is being planned for implementation in 2017.2There are several advantages of a uniform statistical nomenclature and classification. There are many instances where, the diagnosis of the same disease has been described in three or four terms, and each term has been applied to as many different diseases. There are vague, inconvenient names being employed, or complications have been registered instead of primary diseases.3 Such use leads to skewing of the available data on health parameters and also causes confusion and errors in the analysis of health parameters.

Several countries have realized the disadvantages of textual data and have accepted to codify the medical data into ICD-10. Outof 192 member countries of WHO in the world, 109 countries have implemented ICD 10.4The other countries have yet to implement ICD-10, and the World Health Organization has provided a deadline for 1st October, 2015 to be ICD-10 Ready state.

It is worth considering the various reasons for non-compliance of such an important classification as ICD-10 which was introduced by the World Health Organization in 1992-93 and a developing country such as India having embraced the classification. Some of the important reasons that came out during the study by CBHI are listed below, which when attended to, will help in early and easy implementation of ICD in India.

Currently, this being not implemented widely across the country, there is poor demand for coders and hence the newer generation has not realized the potential of this specialization.

Several Indian BPOs and KPOs (Medusind Solutions) are attracting business from hospitals and Health Care Centers across the world for codifying the medical notes into ICD, DRG and CPT codes. This has been made possible due to availability of good quality knowledge workers in India as compared to those in the developed markets.

Towards achieving the desired goal, a workshop was carried out by Government of India for Improving and Strengthening Use of ICD-10 and Medical Record System in India. A case study (2004-2005).5

Observation & findings

Though the World Health Organization came up with ICD 10 as early as 1992 and India initiated the implementation program in the year 2000, even today the implementation and use of ICD is not100 %. Several hospitals have been using ICD 10 but a majority of the hospitals have found it difficult to fully implement the same.

There are several reasons for non-compliance.

Lack of man power, lack of training for use of ICD, lack of trained resources in some of the Government Hospitals and Doctors writing the medical notes or medical summary not using the standard or common terminology and use of self-designed abbreviations to save time, are some of the major restraints. limited resources for carrying out the day to day activities in treating patients, which keeps doctors busy enough and sometimes overburdened with activity of treating patients that they overlook the importance and the need of maintaining proper documentation of diagnosis in details and use several abbreviations to reduce time spent in documentation. As in many of the hospitals the responsibility of performing the coding is laid on the Medical Records Office which may not be fully geared up with the required resources. In addition the abbreviations and non-standard terminology used by treating doctors, adds to the difficulties faced by Medical Records personnel in converting text into codes.

Another important factor is the resource crunch in the Medial Records Office staff and lack of training itself for the Medical Records personnel, to carry out their day to day activity of maintaining textual records that they run short of time to add the activity of coding to their list of daily tasks.

Also, a vast majority of 'for profit' nursing homes or small hospitals operate almost at breakeven point and hence find it difficult to add resources for the use of ICD coding.

Hospitals and Nursing homes can use this trick to improve compliance. Prominent display of important ICD 10 codes relating to each department and in each of the wards of the departments so as to make the codes readily available for the doctors while writing or dictating notes for medical transcription. This will avoid duplication of efforts as well as errors in transcriptions.

Outsourcing for ICD coding is available, as many Indian BPOs and KPOs are doing ICD coding for hospitals and Health Organizations across the developed countries where ICD coders are very expensive to employ as full time employees. These BPOs and KPOs, while attracting hospitals from developed countries for Medical Transcriptions also provide ICD coding along with CPT (Common Procedure Terminology) and DRG (Diagnoses Related Classification) classifications and grouping with universally acceptable turnaround times.

Recommendations[6]

1. All Government and Private health and medical institutions in the country should essentially use ICD 10 in their records and reports and the same should be ensured by all concerned authorities through well designed guidelines, directives and continued monitoring.

2. All medical and health institutions, including hospitals of any size, in the country should equip themselves with WHO publication on ICD 10 (3 volumes) as a reference and ICD 10 codes relevant to each medical specialty be prominently made available in concerned wards in the hospitals. No medical record should remain without ICD 10 code for the diagnosed disease.

3. CBHI should be appropriately further strengthened and equipped to efficiently function asNational Nodal Institute on ICD 10 with the objective of further strengthening use of ICD-10, its continuous monitoring, evaluation and capacity building including creation of Master-Trainers.

4. WHO may consider setting up of WHO Collaborating Centre on Family of InternationalClassification of Diseases and Related Health Problems for SE Asia Region, on prioritybasis, at CBHI, Dte. General of Health Services, Govt. of India, New Delhi

Manpower Capacity Building for ICD 10 use

5. All State/UT authorities should formulate a plan for regular orientation training on the use of ICD 10 and every medical and health institution should make efforts to keep their medical/nursing/paramedical staff duly oriented on ICD 10 through well drawn and regularly conducted Orientation Programs in their institutions.

6. The syllabi and curricula of undergraduate and postgraduate medical as well as paramedical courses in India should appropriately cover the teaching on ICD 10 and its appropriate use.

Operational Plan for implementation of ICD 10, its Monitoring and Evaluation

7. States/UTs should set up a task force for time-bound implementation and monitoring of ICD 10 use. They should maintain a database of various medical and health institutions using/not using ICD 10 and ensure that all these institutions use ICD 10.

8. WHO may develop offline software package for ICD 10 coding of disease nomenclatures and provide it for its use in various medical/health institutions in India. Computerized user manual/self-learning module for ICD 10 may be prepared and circulated through website of CBHI. Further, online help and a newsletter on ICD 10 aspects may be established through CBHI website. CBHI should make an inventory of all such vendors which are involved in designing the health information system using ICD 10 and share the list with States/UTs for getting the institution specific hospital information system designed through a suitable agency.

9. Directives need to be issued from heads of the medical/health institutions to all concerned Medical/Nursing/Paramedical personnel of all departments in the medical/health institutions for ensuring completion of medical records of both outpatient and inpatient departments, and for clearly writing diagnosis using standard medical terminology, while avoiding theabbreviations.

10. Data on morbidity/mortality based on Medical Records should be regularly compiled, analysed and should form the part of various documents/reports of the medical/health institutions including their annual report.

11. There should be regular visits / interaction by CBHI to facilitate the speedy implementation of ICD 10 in the States/UTs.

Strengthening Medical Record Unit/Department and Computerized Medical Record System

12. The medical record system in each medical/health institution should be computerized with appropriately designed software for both outpatient and inpatient records, while using meticulously designed formats, local area network as well as internet facility in all the departments/wards of the medical/health institution.

13. The medical record department in each medical/health institution should be given highest priority and be headed by a senior level expert/officer of the same rank as in other existing technical departments in the same institution. The medical record department should be equipped with requisite number of trained personnel of different categories like medical record officer, Dy. Medical Record Officer, Assistant Medical Record Officer, Sr. Medical Record Technician, Medical Record Technician and other support staff in order to efficiently handle and manage the medical record system of the institution. Thestandardized staffing pattern of medical record department, keeping in view the bed strength in an institution be worked out by the concerned State/UT authorities and medical record departments in various medical and health institutions be equipped accordingly.

14. All the technical functionaries in the medical record department be trained through the prescribed training programs and such training personnel should not be diverted to other departments. The contribution of medical record department functionaries in any of the research papers be duly acknowledged.

15. There should be clear guidelines for period of retention of medical records for both outpatient and inpatient departments and after the said period, they must be destroyed. This will provide adequate space for the records.

- Central computers have been introduced in some of the hospitals to enhance the efficiency of ICD coding & recording.
- Photostat machines have been provided
- Junior Medical Record Technicians and Chief Medical Record Officers have been trained for ICD coding
- Training centers should be introduced, either private or Government so that ICD training can be imparted to more and more individuals making ICD coding widely prevalent in the country
- Importance of ICD 10 coding is emphasized through monthly bulletins of Medical Record Dept.
- Training of doctors and MRD personnel in ICD 10
- Doctors to be made aware of problems created by abbreviations
- Strict instructions and directions given to all to implement ICD 10 and no file without ICD 10 code will be taken by MRD
- Prominent display of important ICD 10 codes relating to each department and in each of the wards of the departments so as to make the codes readily available for the doctors while writing or dictating notes for medical transcription. This will avoid duplication of efforts as well as errors in transcriptions.
- A form can be developed to beattached on the front of case sheet whichwill be signed by consultants, Sr.Resident in which columns forprovisional final diagnosis and ICD 10coding are there.
- Maintenance of Clinical Records Act (MOCRA) needs tobe brought out.

Limitations faced by some of the hospitals:

1. Manpower resources(Medical Doctors as well as non-medical staff) with Knowledge of ICD 10 coding

2. Computerization of Medical Records

3. Training in operating computers

4. Development of software programs such that unless ICD 10 code is filled, discharge summary will not be generated as such ICD 10 coding is being done.

5. Management of Medical Records Office to gear up for implementation of ICD-10. Medical Record Departments are notgiven the due priority, the implementation has not been taking place and thus advised that time has comenow to accord the due priority to Medical Record Departments and to provide the necessary financial andtechnical inputs to ensure the implementation of ICD 10

6. Non availability of clear diagnoses and treatment in the medical papers sent to Medical Records Office

7. Due priority to Medical Record Departments and to provide the necessary financial andtechnical inputs to ensure the implementation of ICD 10.[7]

Conclusions

Implementation of ICD 10 is a very important factor in improving the country's Health Care programs and is beneficial to all the stake holders.

Hospitals and Health Care facilities across the country should develop a road map to fully implement ICD-10 at least by 1st October, 2015 which is the final target deadline issued by WHO for all countries to implement ICD-10 and use it fully in all medical records from the said date.

REFERENCES

1. CBHI-Central Bureau of Health Intelligence-Module & Work Book, Orientation Training on ICD 10-2004.
2. International Statistical Classification of Diseases and Related Health Problems-Wikipedia
3. First annual report. London, Registrar General of England and Wales, 1839, p. 99.
4. Strengthening Use of ICD 10 Page No. 15Dr. Anton Fric, Regional Advisor, WHO, SEARO
5. www.cbhidghs.nic.in
6. Workshop of Key Trainers on ICD 10 from Cities of Delhi and Rohtak In order to improve and strengthen the use of ICD 10, 21-23 July 2004, New Delhi.
7. Workshop of Key Trainers on ICD 10 from Cities of Delhi and Rohtak in order to Improve and Strengthen the use of ICD 10, 21-23 July 2004, New Delhi. Use of ICD 10, 21-23 July 2004, New Delhi.